

REMARKS

The last Office Action of January 31, 2006 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-14 are pending in the application. Claims 1, 5, 7, 10 have been amended. Claims 9, 13, 14 have been canceled. Claim 15 has been added. Amendments to the specification and drawing have been made. No fee is due.

It is noted that the drawings are objected to because of applicant's failure to show every feature set forth in the claims. New drawing sheets are submitted herewith and labeled "Replacement Sheet" and "New Sheet", respectively.

Claims 1, 11, and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. Appl. No. 2001/0048858 A1 to Akamatsu et al..

Claims 2, 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 5,009,554 to Kameyama et al..

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 6,264,409 to Date.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Date in view of U.S. Pat. No. 3,806,272 to Muller.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 6,464,435 to Chen.

Claims 7-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 5,322,494 to Holtey.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 2,995,069 to Wahlstrom.

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of Wahlstrom and further in view of Kameyama.

Claims 12 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Akamatsu et al. in view of U.S. Pat. No. 4,583,894 to Mitchell.

OBJECTION TO THE DRAWING

Applicant submits herewith new Figs. 2 and 3 to show the subject matter of original claims 4 and 5, respectively. The previously contained sole FIGURE has now been renumbered as Fig. 1 to indicate an area, shown by a circle and depicted on an enlarged scale in Fig. 2. Fig. 3 shows the tie rod with the central bore and the tube extending into the central bore and being removable therefrom. The specification has been amended to make it consistent with the amendments to the drawing. No new matter has been added.

Withdrawal of the objection to the drawing is thus respectfully requested.

REJECTION OF CLAIMS 1, 11, 13 UNDER 35 U.S.C. §102(b)

Claim 13 has been canceled, and claim 1 has been amended by incorporating the subject matter of claim 9. Thus, the rejection under 35 U.S.C. 102(b) becomes moot.

Withdrawal of the rejection of claims 1 and 11 under 35 U.S.C. §102(b) is thus respectfully requested.

REJECTION UNDER 35 U.S.C. §103(a)

Applicant has amended claim 1 by incorporating the subject matter of claim 9 and by setting forth the interrelationship between the bearing assembly and the shifting unit, and as a result of this interrelationship the effect on the drive shaft and the tie rod. More specifically, claim 1 now recites that the bearing assembly not only supports the drive shaft but as a consequence of its axial mobility also moves the drive shaft and thus the tie rod in axial direction between the rearward and forward positions. Support for the amendments to claim 1 can also be found in paragraph [0020] of the instant specification.

As the Examiner correctly noted, Akamatsu et al. fail to disclose the provision of an axially displaceable bearing assembly. In order to establish a case of obviousness, the Examiner combined Akamatsu et al. with the Wahlstrom reference and noted that "*Wahlstrom teaches a drive shaft 89 with an axially displaceable bearing assembly 52 for the purpose of providing moving support of the drive shaft.*". Applicant respectfully disagrees with this reading of the Wahlstrom disclosure. As described in the passage bridging columns 3 and 4, the upper set of ball bearing (52) as well as the lower set of tapered roller bearings (53) are provided to support the spindle (50). As shown in Fig. 2 and described in column 4, lines 11 to 16, the spindle (50) accommodates a shank (88) of chuck (85), drive shaft (89) and hollow motor shaft (74) in end-to-end relationship. Wahlstrom fails to disclose the provision of a bearing assembly, that is moved in axial direction to thereby displace a drive shaft and tie rod, as set forth in claim 1.

For the reasons set forth above, it is applicant's contention that neither Akamatsu et al. nor Wahlstrom, nor a combination thereof teaches or suggests the features of the present invention, as recited in claim 1.

As for the rejection of the retained dependent claims, these claims depend on claim 1, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

It should, however, be noted that these dependent claims contain individual patentable features per se. In this connection, applicant wishes to refer e.g. to amended claims 5 and 7 as well as newly submitted claim 15.

With respect to the subject matter of claim 5, applicant wishes to note as follows: The Date reference describes a spindle apparatus having a drive shaft body (29) provided with an air supply hole (61), with a clamp bolt member (23) having an air discharge hole (75). The air supply is provided to eliminate dirt that may accumulate in the taper hole (9) and tool holder (T). In contrast thereto, claim 5, as amended, sets forth the transport of lubricant. Support therefore can be found in paragraph [0025] of the instant specification. Apart from the different

material involved, Dade also fails to disclose a drive shaft with a tube extending into the central hole of the tie rod, as acknowledged also by the Examiner. In order to establish a case of obviousness, the Examiner combined Dade with the Muller reference. Muller discloses a spindle arrangement with a drive shaft (33) disposed in a hollow draw-in bar (22). The drive shaft is provided on one end with a bore (37) for connecting the drive shaft and a spindle (38). Muller is completely silent as to the transport of a material, let alone of lubricant.

It is therefore applicant's contention that a combination of Dade and Muller does not produce the invention as set forth in independent claim 5.

Claim 15 sets forth the coaxial disposition of the spindle head assembly and the drive unit. This is clearly shown in Fig. 1.

Claim 7 sets forth the axial mobility of the rotor that is also not disclosed by any of the prior art of record.

Withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of claims 1-8, 10-11, and 15, are thus respectfully requested.

CITED REFERENCES

Applicant has also carefully scrutinized the further cited prior art and finds it without any relevance to the newly submitted claims. It is thus felt that no specific discussion thereof is necessary.

CONCLUSION

Applicant believes that when reconsidering the claims in the light of the above comments, the Examiner will agree that the invention is in no way properly met or anticipated or even suggested by any of the references however they are considered.

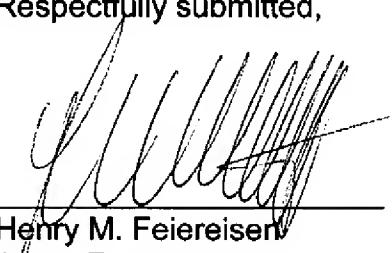
In view of the above presented remarks and amendments, it is respectfully submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

By:


Henry M. Feiereisen
Agent For Applicant
Reg. No: 31,084

Date: April 28, 2006
350 Fifth Avenue
Suite 4714
New York, N.Y. 10118
(212)244-5500
HMF:af